

Patent Re. 35,104) in view of Hunsinger et al. (U.S. Patent 5,956,624). Applicants respectfully traverse the rejection of these claims, for the reasons set forth below.

A. CLAIMS 1 AND 18

Claims 1 and 18 are directed to an information processing apparatus and method in which error detection or correction encoding is performed on at least a portion in a header (in information to be distributed) with higher redundancy than an entity in the information to be distributed. The information to be distributed encoded by said encoding means is multiplexed in a broadcast signal, and the multiplexed signal is transmitted.

As acknowledged by the Examiner, Murakami does not disclose or suggest any error detection or correction encoding being performed on at least a portion in a header with higher redundancy than an entity in the information to be distributed. The Examiner asserts that the above limitation is shown by Engelbrecht which states:

While the header segment will encounter a higher error rate than the data channels, the redundancy is so high, and the changes are so infrequent, that the resultant information transfer is nearly errorless.

(Engelbrecht, col. 7, lines 2-5). However, the cited portion of Engelbrecht discusses encoding 24 bits of header data to 32 symbols for error detection. As this header data changes infrequently when transmitted along with corresponding data, the resultant information transfer would be nearly errorless. None of the header data is encoded with a higher redundancy per transmission of a corresponding data program portion. As such, Engelbrecht is silent as to any error detection or correction encoding being performed on

at least a portion in a header with higher redundancy than an entity in the information to be distributed.

Accordingly, claims 1 and 18 and their dependent claims are believed to be patentably distinguishable over the cited references. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

B. CLAIMS 8 AND 19

Similarly, claim 8 and 19 is directed to an information processing apparatus and method in which the information to be distributed is multiplexed in a broadcast signal and the multiplexed signal is transmitted. A portion of a header in the information to be distributed is transmitted at least a plurality of number of times while an entity in the information to be distributed is transmitted.

For similar reasons as discussed above for claims 1 and 18, claims 8 and 19 and their dependent claims are also believed to be patentably distinguishable over the cited reference. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

C. CLAIMS 12 AND 20

Claims 12 and 20 are directed to an information processing apparatus and method in which the information to be distributed encoded by said encoding means is multiplexed in a broadcast signal, and the multiplexed signal is transmitted. A plurality of kinds of information are able to be transmitted as an entity in the information to be

distributed, and different error detection or correction ability are used by the encoding means/step in correspondence to the kinds of information to be distributed.

As acknowledged by the Examiner, Murakami does not disclose or suggest a plurality of kinds of information being able to be transmitted as an entity in the information to be distributed, and the encoding means using different error detection or correction ability in correspondence with the kind of information. The Examiner asserts that the above limitations are taught by Hunsinger (e.g., col. 11 lines 17-21 and 11-33).

However, Hunsinger simply discusses employing a combination of different error correction codes for one kind of information, e.g., audio signals. See Hunsinger, col. 30-45. Hunsinger is silent as to the use of different error detection or correction ability in correspondence with the kind of information (e.g., video, audio, etc.). In other words, Hunsinger does not disclose or suggest the use of different error detection or correction ability for different kinds of information to be distributed.

Accordingly, claims 12 and 20 and their dependent claims therefrom are believed to be patentably distinguishable over the cited reference. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

D. CLAIMS 15 AND 21

Claims 15 and 21 are directed to an information processing apparatus and method in which the information to be distributed is multiplexed in a broadcast signal and the multiplexed signal is transmitted. The information to be distributed is transmitted as an entity in a data format used for multiplexing another information in a description format, which is not used in the multimedia network, in an FM audio signal, and in which

the data format forms an error correction code and a header of the information to be distributed forms an error correction code that is different from the error correction code formed from the data format.

As acknowledged by the Examiner, Murakami does not disclose or suggest a header of the information to be distributed forming an error correction code that is different from the error correction code formed from the data format. The Examiner asserts that the above feature is taught by Hunsinger (col. 11, lines 17-29) which states:

The compressed digital audio data making up a digital data stream of about 256 kbit/sec in the first embodiment, is then sent to error correction encoder 35 which adds redundancy of, for example, 128 kbit of error correction code in order to assist in signal recovery. Thus, in the first embodiment, the digital data stream emitted from error correction encoder 35 is the combination of the 256 kbit/sec data stream input into encoder 35 and the 128 kbit of error correction code, so as to in combination make up about a 384 kbit/sec data stream which is forwarded to modulator/multiplier 39.

In other words, Hunsinger as relied upon by the Examiner simply shows error correction encoding involving the adding of an 128 kbit of error code to 256 kbit data stream input to form a 384 kbit/sec data stream. Hunsinger is silent as to a header of the information to be distributed forming an error correction code that is different from the error correction code formed from the data format. Further, it is unclear from the Office Action (e.g., Page 5) how the references would be combined to provide the above-noted claimed arrangement.

Furthermore, none of the cited references discloses or suggest transmission of information to be distributed in a data format used for multiplexing

another information in a description format in an FM audio signal. The Office Action does not address this limitation as to claims 15 and 21. See Office Action, pages 4-5.

Additionally, none of the cited references discloses or suggests information being transmitted as an entity in a data format used for multiplexing another information in a description format that is not used in a multimedia network. The Examiner has not addressed this limitation in the Office Action.

Thus, claims 15 and 21 and their dependent claims are believed to be patentably distinguishable over the cited references. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

E. CLAIMS 22 AND 38

Claims 22 and 38 are directed to an information processing apparatus and method in which a broadcast signal is received. The broadcast signal is obtained by multiplexing information to be distributed in a description format used in a multimedia network and an error correction or detection check code added for at least partial information of the information to be distributed, as an entity of a data format which is used for multiplexing predetermined information in an FM audio signal and includes an error correction check code. Error correction or detection processing of the information to be distributed is performed using the error correction or detection check code. The processing based on the error correction check code and based on the error correction or detection check code are executed at different timings.

As acknowledged by the Examiner, Murakami does not disclose transmission of information to be distributed as an entity in a data format used for

multiplexing another information in a description format, which is not used in the multimedia network, in an FM audio signal. The Examiner relies upon Fig. 27 of Engelbrecht as teaching the above-noted claimed feature. However, Fig. 27 simply shows a transmission system in which interleaved data is multiplexed. See Engelbrecht, col. 12, lines 37-59. Further, the Engelbrecht system appears to involve simply digital audio broadcast. See Engelbrecht, col. 2, lines 55-60 and col. 13, lines 27-32. Accordingly, Engelbrecht does not remedy this deficiency in the Murakami teaching.

As to the execution of processing based on the added check code and based on the check code of the data format at "different timings," the Examiner relies on Fig. 27 and col. 6, line 67 to col. 7, line 15 of Engelbrecht. However, Fig. 27 of Engelbrecht simply shows the general components of a transmission system (e.g., master station, transmitter, etc.), col. 6, line 67 to col. 7, line 15 discusses error detection coding of header data. Engelbrecht is silent as to the two claimed check codes, e.g., the added error correction or detection check code and the error correction code of a data format. As such Engelbrecht is also silent as to processing based on such check codes and execution of such processing at different timings.

Thus, claims 22 and 38 and their dependent claims are believed to be patentably distinguishable over the cited references. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

F. CLAIMS 30 AND 39

Claims 30 and 39 are directed to an information processing apparatus and method in which a broadcast signal is received. The broadcast signal is obtained by

multiplexing information to be distributed in a description format, used in a multimedia network, as an entity of a data format used for multiplexing predetermined information in an FM audio signal. The information to be distributed is stored, and it is informed that the received information to be distributed is stored in said storage means and has not been output to an external device.

As discussed above for claims 15 and 21, the cited references do not disclose or suggest the claimed multiplexing arrangement.

As to the storing and informing limitations, the Examiner relies Fig. 27 of Engelbrecht. See Office Action, page 3. However, as discussed above, Fig. 27 simply shows a transmission system and the corresponding text in the specification, e.g., at col. 12, lines 37-59, is silent as to any storing or informing, as claimed.

Thus, claims 30 and 39 and their dependent claims are believed to be patentably distinguishable over the cited reference. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

G. CLAIMS 35 AND 41

Claims 35 and 41 are directed to an information processing apparatus and method in which a broadcast signal is received. The broadcast signal is obtained by multiplexing information to be distributed in a description format, used in a multimedia network, as an entity of a data format used for multiplexing character information in an FM audio signal. The information to be distributed is stored. A command is executable for displaying the stored information, and a command is executable for outputting the stored information to an external device, at different timings.

As discussed above for claims 15 and 21, the cited references do not disclose or suggest the claimed multiplexing arrangement. Also, as discussed above for claims 32 and 40, none of the references discloses or suggests the claimed storing and displaying of such stored information.

Furthermore, the cited references do not disclose or suggest any executable command for outputting the stored information to an external device, at different timings. The Examiner has not specifically indicated where such a limitation is taught in the cited references (see Office Action, pages 3-4), and it is believed that the cited references are silent as to such limitation.

Thus, claims 35 and 41 are believed to be patentably distinguishable over the cited references. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

H. CLAIMS 42 AND 48

Claims 42 and 48 are directed to an information processing apparatus and method involving a) inputting information data, and a check code for correcting an error of the information data; b) detection means for detecting an error state of the information data; c) setting an allowable error state of the information data; and d) controlling processing for the information data input by said input means in accordance with outputs from said setting means and said detection means.

As acknowledged by the Examiner, Murakami does not disclose or suggest any setting of an allowable error state of the information data and, accordingly,

any controlling of processing for the information data input by said input means in accordance with outputs from said setting means and said detection means.

Hunsinger, as relied upon by the Examiner, does not remedy the deficiencies in the Murakami teaching. In particular, Hunsinger, col. 11, lines 21-27, states:

Thus, in the first embodiment, the digital data stream emitted from error correction encoder 35 is the combination of the 256 kbit/sec data stream input into encoder 35 and the 128 kbit of error correction code, so as to in combination make up about a 384 kbit/sec data stream which is forwarded to modulator/multiplier 39.

The cited portion of Hunsinger simply discusses the rate of the data stream emitted from the encoder 35, which is different than any setting of an allowable error state.

Thus, claims 42 and 48 are believed to be patentably distinguishable over the cited references. Reconsideration and withdrawal of the rejection of these claims are respectfully requested.

III. Objection to Claims 4, 6, 10-11, 14, 17, 26-27, 29, 31 and 46

The Examiner has objected to claims 4, 6, 10-11, 14, 17, 29, 31 and 46 as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. As base claims 1, 8, 14, 15, 22, 30 and 42 are believed to be allowable, reconsideration and withdrawal of the objection of these claims are respectfully requested.

CONCLUSION

Based on the foregoing remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-48 and allowance of this application.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4503, Order No. 1232-4450. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

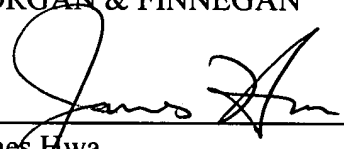
In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4503, Order No. 1232-4450. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,
MORGAN & FINNEGAN

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Mailing Address:
MORGAN & FINNEGAN
345 Park Avenue
New York, New York 10154
(212) 758-4800
(212) 751-6849 Facsimile

By: _____


James Liwa
Registration No. 42,680
(202) 857-7887 Telephone
(202) 857-7929 Facsimile